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LIGATION OF THE UTERINE ARTERIES FOR THE CURE OF A FIBRO-MYOMATOUS TUMOR OF THE UTERUS.*

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Inasmuch as abdominal section for the removal of a fibro-myomatous uterus is still a dangerous procedure, despite the good results obtained by a few operators during the past two or three years, any form of treatment, operative or otherwise, which is devoid of danger should be welcomed and given a trial if it is based upon scientific investigation, and especially if it has already shown good results. In ligation of the uterine arteries we have such an operation. The credit of bringing the plan to the notice of the profession is claimed by Sigmund Gottschalk, of Berlin, but it is due to an American. Dr. W. B. Dorsett † first proposed the plan, and the credit of priority, if any is due, belongs to him alone. Unfortunately, this idea was not placed in the columns of a leading gynæcological journal, or our German *confrères* would have gained some time in putting it in execution.

Dorsett's reasons for the proposition were based upon sound anatomical facts, therefore he has a right to claim priority. On the other hand, Gottschalk, in his paper On the Histogenesis and Ætiology of Uterine Fibro-myomata, read before the First International Gynæcological Congress, September 16, 1892, bases his reasons for performing the operation on carefully conducted histological researches. His conclusion that the neoplasms have an irritative origin must as yet be considered somewhat hypothetical; yet the ground taken by him proved, to a great extent, correct when the plan was practically carried out. His reasoning, based upon his histological studies, led him to tie the uterine arteries to relieve the symptoms produced by the neoplasm, and the result was a happy one.

* Read before the New York Obstetrical Society, December 5, 1893.

† *St. Louis Courier of Medicine*, August, 1890.

Following Gottschalk, Franklin H. Martin, of Chicago, did the same operation under the term Ligation of a Portion of the Broad Ligaments. Martin's idea is quite correct, so far as the effect of cutting off the blood supply goes, and corroborates both of the previous writers, Dorsett and Gottschalk; but he is surely in error to suppose that the ligation of non-vascular parts of the broad ligament will have any effect upon the tumor. His paper, from beginning to end, as well as the narration of his cases, shows plainly that he also considers cutting off the blood supply as of main importance. It is much easier to ligate *en masse* than to pick out the vessels and tie them separately, as Dorsett, Gottschalk, and Küstner prefer, so that from a practical standpoint I adopt the views of Martin—viz., to ligate *en masse*.

The following case is the only one in which I have tried this method: Marie K., thirty-four years of age, and married for seven years. She had one abortion four years after marriage, at the eighth month of gestation. The symptoms which led the patient to seek advice in my clinic were profuse and prolonged menstruation. The flow lasted from six to ten days, with only two to three weeks' intermission. For the previous six months she had suffered from constipation and backache. The symptoms had existed for a year, but were only prominent during the time noted, when they had gradually been increasing. A fibro-myoma the size of a large hen's egg was diagnosticated on the posterior wall of the uterus. Considering the histogenesis of fibro-myomata advanced by Gottschalk perfectly rational, I followed the example of that author and tied the uterine arteries of both sides, but made a slight variation in the *technique*. The patient was prepared and placed in the dorsal position, as for vaginal hysterectomy. The fibro-myomatous uterus was pulled down as low as possible with a volsella forceps and the *cul-de-sac* of Douglas opened, so as to allow the index finger to be used as a guide in order that the uterine artery should be included in the ligature. The vaginal mucous membrane on either side was also cut. After the vessels had been ligated the opening in the *cul-de-sac* was closed, as was also the lateral incision into the mucosa.

It is now more than eight months since the operation, and when I examined the patient five or six weeks ago I could find no evidence of the growth. The symptoms due to the neoplasm—viz., bleeding and backache—have disappeared. The constipation I regard as habitual. The menstrual period following the operation was not at all to be compared to the previous periods. The flow now lasts only

three or four days, and the woman does not lose more blood than she did several years ago.

In addition to my case, good results were obtained by Gottschalk, Küstner, and Franklin H. Martin. Martin was seemingly the first to put the treatment into practice for fibro-myomata in this country. In his article, which appeared a few days after I had operated, he does not state the size of the growth, and it would seem from the descriptions that they were the larger sized tumors. If my supposition of Martin's cases be correct, more has been gained by the introduction of this operative measure than was at first thought. Gottschalk proposed it only for very small tumors. I see no reason, however, why it may not be applied to larger tumors, because there is seemingly no danger—certainly not more than there is in a curetting. There can not be the same objection to tying the vasa uterina as there is to the removal of the appendages, because no abdominal section is made, and the operation does not confine the patient to bed for more than two or three days. If after two months it is found that there is no amelioration of the symptoms, hysterectomy can and should be resorted to. Failure may result from the establishment of the collateral circulation, yet the fortunate results so far attained justify us in making further trials in suitable cases. I should not, of course, advocate the method in tumors which are very large, or in pedunculated growths, etc. I would limit the application of the method to tumors which do not reach a size larger than sufficient to extend two to three fingers' breadth above the symphysis. Suppurative disease of the annexa is a contraindication to the operation.